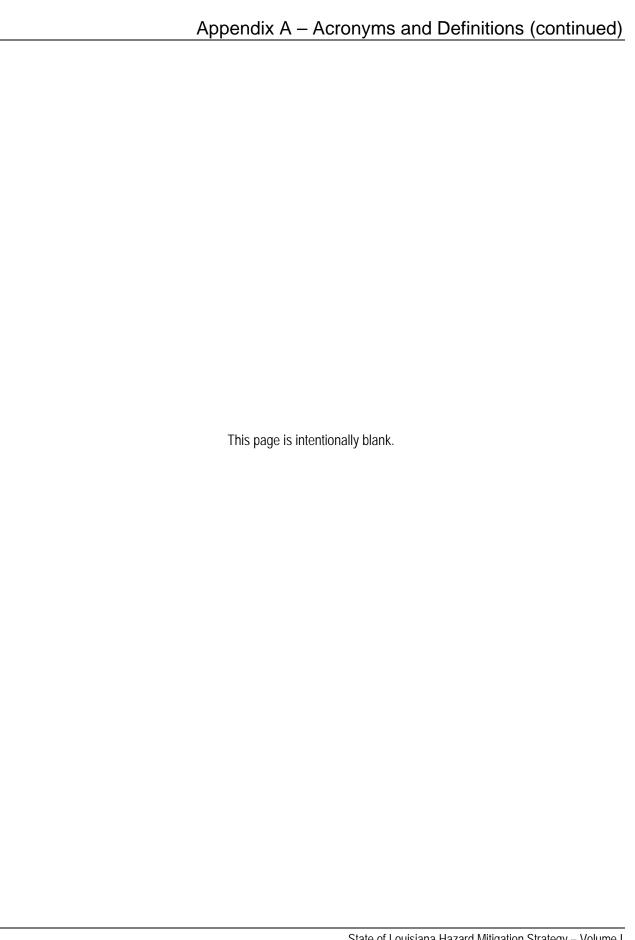
# Appendix A: Acronyms and Definitions

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# Appendix A.1 Acronyms

Α

AEL Annualized Estimated Loss

AICP American Institute of Certified Planners

APA American Planning Association

ARC American Red Cross

ASCE American Society of Civil Engineers

В

BCA Benefit-cost analysis

BOCA Building Officials and Code Administrators

BFE Base Flood Elevation

BLM Bureau of Land Management BRV Building Replacement Value

С

CDBG Community Development Block Grants
CDC Centers for Disease Control and Prevention
CEM Comprehensive Emergency Management
CERT Citizens Emergency Response Team

CF Criticality Factor

CFR Code of Federal Regulations
CMD Coastal Management Division
COOP Continuity of Operations Planning

CPI Consumer Price Index

CPGP Calcasieu Parish Groundwater Project
CRMS Coastwide Reference Monitoring Systems

CRS Community Rating System

CUSEC Central United States Earthquake Consortium

CVI Coastal Vulnerability Index

CWPPRA Coastal Wetlands Planning, Protection and Restoration Act

CZMP Coastal Zone Management Plan

D

D&B Dun and Bradstreet

DAF Louisiana Department of Agriculture and Forestry

DDF Depth-Damage Function

DED Louisiana Department of Economic Development
DEQ Louisiana Department of Environmental Quality

DFIRM Digital Flood Insurance Rate Map

DHH Louisiana Department of Health and Hospitals

DHS Department of Homeland Security
DMA 2000 Disaster Mitigation Act of 2000

DNR Louisiana Department of Natural Resources
DOC Louisiana Department of Corrections
DOQQ Digital Orthophoto Quarter Quadrangle

DOS Department of State

DOTD Department of Transportation and Development

DR Disaster Recovery (Division at OHSEP)
DSS Louisiana Department of Social Services
DWF Louisiana Department of Wildlife and Fisheries

Ε

EDA U.S. Economic Development Agency
EMA Emergency Management Agency
EOC Emergency Operations Center
EOP Emergency Operations Plan

EPA U.S. Environmental Protection Agency

EPM Emergency Program Manager

ESRI Environmental Systems Research Institute

F

F Degrees Fahrenheit

FBI Federal Bureau of Investigation

FEMA Federal Emergency Management Agency

FFE First Floor Elevation

FHBM Flood Hazard Boundary Map
FIA Flood Insurance Administration
FIMA Flood Insurance Management Agency

FIRM Flood Insurance Rate Map
FMA Flood Mitigation Assistance
FPC Facility Planning and Control

FPI Fire Potential Index

FPMS FloodPlain Management Services

fps feet per second FY Fiscal Year

G

GIS Geographic information system

GORD Governor's Office of Rural Development

GPS Global positioning system
GSA General Services Administration

Н

HAZMAT Hazardous material HAZUS Hazards U.S.

HAZUS-MH Hazards U.S. – Multi-Hazard

HIDF Hazardous Materials Incident Damage Function
HIRA Hazard Identification and Risk Assessment

**HMP** Hazard mitigation plan

Hazard Mitigation Grant Program **HMGP** 

Hazard Mitigation Technical Assistance Program **HMTAP** U.S. Department of Housing and Urban Development HUD

I

IΑ Individual Assistance IBC International Building Code

**IBHS** Institute for Building and Home Safety

**Incident Command System** ICS

**IDDF** Inundation Depth-Damage Function

Interim Emergency Board IEB

Integrated Emergency Management System **IEMS** 

**IFG Individual and Family Grants** 

**IFLOWS** Integrated Flood Observing and Warning System

**IFR** Interim Final Rule

**ISDF** Ice Storm Damage Function

L

LAMAP Louisiana Mosquito Abatement Program

LCA Louisiana Coastal Area

LCCC **Local Citizen Corps Committees** 

Louisiana Community Development Block Grant LCDBG

LCRP Louisiana Coastal Resources Program Louisiana Division of Administration LDA

Louisiana Emergency Assistance and Disaster Act LEADA

**LEPC** Local Emergency Planning Committee

LF Linear Feet/ Foot

Louisiana Geographic Information System Council **LGISC** 

Land Loss Damage Function LLDF

Louisiana Mosquito Control Association **LMCA** 

Loss of Function LOF

Letter of Map Amendment LOMA Letter of Map Revision LOMR

LRCP Louisiana Coastal Resources Program LSU AgCenter Louisiana State University -Agricultural Center

Louisiana State University LSU

M

MOA Memorandum of Agreement maximum of the maximum MOM Memorandum of Understanding MOU

Modified Mercalli Index MMI **MMP** Map Modernization Program

mph miles per hour meters per second mps MSL Mean sea level

N

NBC Nuclear, Biological, Chemical
NCDC National Climatic Data Center
NED National Elevation Dataset
NEPA National Environmental Policy Act
NFIP National Flood Insurance Program
NFIRA National Flood Insurance Reform Act

NHC National Hurricane Center

NIBS National Institute of Building Sciences

NID National Inventory of Dams

NIST National Institute of Standards and Technology

NITE National Insurance Task Force

NOAA National Oceanic and Atmospheric Administration

NPS National Park Service

NRCS U.S. Natural Resources Conservation Service

NTSB National Transportation Safety Board

NWS National Weather Service

0

OCD Louisiana Office of Community Development
OFPC Office of Facility Planning and Control

OHSEP Louisiana Office of Homeland Security and Emergency Preparedness

OMB Office of Management and Budgets
OPH Louisiana Office of Public Health

Ρ

PA Public Assistance

PCWRP Parish Coastal Wetlands Restoration Program

PDM Pre-Disaster Mitigation

PDM-C Pre-Disaster Mitigation Competitive Grant Program

PGA Peak Ground Acceleration

PL Public Law
PNP Private Non-Profit

PPE Personal Protective Equipment PSA Public Service Announcement

PW Project Worksheet

R

RACES Radio Amateur Civil Emergency Service

RMP Risk Management Programs

S

SARS severe acute respiratory syndrome
SBA Small Business Administration
SBC Standard Building Code
SFHA Special Flood Hazard Area

SHMO State Hazard Mitigation Officer

SHMPC State Hazard Mitigation Planning Committee

SHMT State Hazard Mitigation Team SHPO State Historic Preservation Officer

SLOSH Sea, Land, and Overland Surges from Hurricanes

sq mi square miles

SSDF Storm Surge Damage Function

U

UGB Urban Growth Boundary
USB Urban Service Boundary
USACE U.S. Army Corps of Engineers
USBC Uniform Statewide Building Code

USC United States Code

USDA U.S. Department of Agriculture

USFS U.S. Forestry Service

USFWS U.S. Fish and Wildlife Service

USGS U.S. Geologic Survey

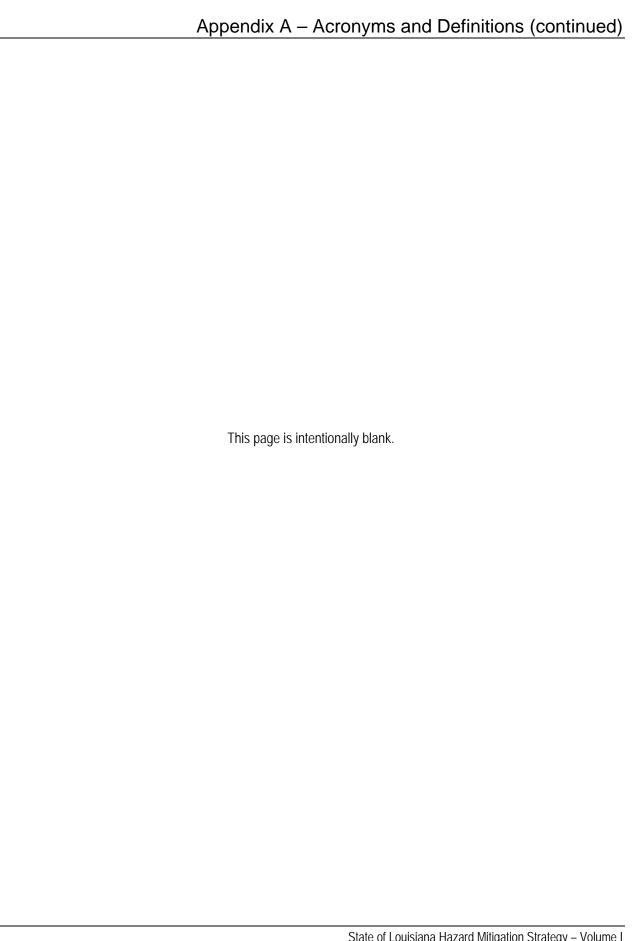
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VOAD Volunteer Organizations Active in Disaster

W

WDF Wind Damage Function
WMD Weapons of Mass Destruction
WRD Water Resources Development Act
WSCF Wildfire Suppression Cost Functions

WUI Wildland Urban Interface



# Appendix A.2 Definitions

The following terms are used throughout the Plan, but are not necessarily defined when they occur. Many of the definitions provided below are based on FEMA's State and Local Mitigation Planning How-to Guides (FEMA 386-1, 2, and 7) and the American Planning Association publication, *Planning for Post-disaster Recovery and Reconstruction* (Schwab 1998).

Words that are shown in **Boldface** the first time they occur in the definitions are also defined in this sub-appendix.

#### 0.2% Flood

Also known as the "500-year flood", this is a flood event having a 0.2 percent chance of being equaled or exceeded in any given year.

#### 1% Flood

Also known as the "100-year flood" or "base flood", this is the flood having a 1 percent chance of being equaled or exceeded in any given year. This is the most common reference point statistically for referring to flood events because it is used for regulatory purposes in the National Flood Insurance Program (NFIP).

#### 100-Year Flood

See 1% Flood.

# 500-year Flood

See 0.2% Flood.

#### Acceleration

The rate of change of **velocity** with respect to time.

#### Accretion

This type of sediment movement occurs when more sediment is deposited along a particular area (*e.g.*, a stream bank or shoreline) than is lost due to erosion.

# **Acquisition** (of hazard-prone structures)

The process by which local governments may gain possession of lands and other property in high hazard areas through the use of conservation easements, purchase of development rights, or outright purchase of the property.

#### Asset

Any manmade or natural feature that has value, including but not limited to: people; buildings; infrastructure such as bridges, roads, and sewer and water systems; lifelines like electricity and communication resources; or environmental, cultural, or recreational features like parks, dunes, wetlands, or landmarks.

#### **Asset Inventory**

An assessment of community **assets** that are located in each hazard area. This assessment should include information about the asset locations, types, function, value, contents (if applicable), and the population of the jurisdiction that may be affected by each hazard event. An estimation of the effect on the jurisdiction of the loss of or damage to this asset also should be considered.

# **Average Daily Operating Budget**

The average cost to operate a facility for one day (including wages, overhead, inventory, etc.)

#### Base Flood

See 1% Flood.

#### Base Flood Elevation (BFE)

The elevation of the Base Flood in relation to a specified datum, such as the National Geodetic Vertical Datum of 1929. The Base Flood Elevation is used as a standard for the National Flood Insurance Program (NFIP). The Base Flood is the flood that has a 1% chance of being equaled or exceeded in any given year. The Base Flood is also referred to as the 100-Year Flood.

#### Base Map

A map used as a bottom "layer" for risk assessment and hazard analysis. This map should be **planimetric** and should be as complete, accurate, and current as possible. Other than distinguishable buildings, roads, rivers, coastlines, place names, and a north arrow, the base map should be as uncluttered as possible.

#### **Bedrock**

The solid rock that underlies loose material such as soil, sand, clay, or gravel.

# Benefit-cost Analysis

Benefit-cost analysis is a systematic, quantitative method of comparing the projected benefits to projected costs of a project or policy. It is used as a measure of cost effectiveness.

# **Building**

Any structure that is walled and roofed, including a storage tank for gas or liquid, which is principally above ground and permanently affixed to a site. This also includes manufactured homes on a permanent foundation on which the wheels and axles carry no weight.

#### Capability Assessment

An assessment that provides a description and analysis of a community's or state's current capacity to address the threats associated with hazards. The capability assessment attempts to identify and evaluate existing policies, regulations, programs, and practices that positively or negatively affect the community's or state's ability to address specific hazards or threats.

#### Channelization

The practice of hardening (and more often than not, straightening) the banks of a river or stream to ensure that its path remains predictable and controlled.

#### Coastal High Hazard Area

As defined under the NFIP, this is an area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high-velocity wave action from storms or seismic sources.

# Coastal Zone

The area along the shore where the ocean meets the land as the surface of the land rises above the ocean. This land/water interface includes barrier islands, estuaries, beaches, coastal wetlands, and land areas having direct drainage to the ocean.

#### **CoBRA**

<u>Coastal Barrier Resources Act enacted in 1982.</u> The CoBRA, while not prohibiting privately financed development, prohibits most new Federal financial assistance, including flood insurance, within an area designated as part of the Coastal Barrier Resources System (CBRS).

#### Community

As defined for the purposes of the NFIP, a community is any State, area, or political jurisdiction or any Native American tribe, authorized tribal organization, Alaska native village, or authorized native organization that has the authority to adopt and enforce floodplain management ordinances for the area under its jurisdiction. See also **Local Government**.

# Community Rating System (CRS)

A voluntary system under the NFIP in which communities undertake planning and regulatory activities beyond NFIP minimum requirements in order to obtain credits that earn premium reductions for flood insurance for their residents and property owners. These activities are delineated in the CRS guidelines but include four general categories: public information; mapping and regulatory activities; flood damage reduction; and flood preparedness. The premium reductions come in a series of 5 percent steps based on points earned under the system.

# Comprehensive Emergency Management (CEM)

A framework for planning, organizing, and managing emergency protection efforts. There are four recognized phases in the all-hazards approach – mitigation, preparedness, response, and recovery.

# Consequences

The damages (full or partial), injuries, and losses of life, property, environment, and business resulting from a hazard event that can be quantified by some unit of measure, often in economic terms.

#### Constriction

In a **Floodplain**, re-grading, or filling within or on the edge of a floodplain, that obstructs flood flows, backing up floodwaters onto upstream and adjacent properties. Constrictions also increase the velocity of floodwater downstream of the constriction, and reduce the floodplain's ability to store excess water, sending more water downstream and causing floods to rise to higher levels.

# **Content Loss**

Part of the Loss Estimation process, this value represents the total dollar value loss to the contents of a structure as a result of damage from a hazard event. This value (for each affected structure) is equal to the **Content Value** of the structure multiplied by the percent damage experienced by those contents from the hazard event.

#### **Content Value**

As part of an asset inventory, this is an estimate of the costs associated with loss of a building's inventory. This value is usually estimated as a percentage of a facility's **Replacement Value**, depending on the **Occupancy Class** of the facility.

#### Contour

A line of equal ground elevation on a **Topographic** map.

#### Cost-effectiveness

One evaluation criteria for Federal grant programs. FEMA defines a cost-effective project as one whose long-term benefits exceed its costs. That is, a project should prevent more expected financial loss that it costs initially to fund the effort. **Benefit-cost analysis** is one way to illustrate that a project is cost-effective.

# County

As per Title 15.2 Section 102 of the COV, a "County" is any existing county or such unit hereafter created.

# **Critical Facility**

Any facility or building that is considered vital to the health, safety, and welfare of the population and the use of which is especially important following hazard events. Critical facilities include, but are not limited to: (1) essential facilities required to maintain emergency response actions, (2) lifeline services (*e.g.*, shelters, potable water supplies, health facilities), (3) public safety (*e.g.*, police and fire stations), (4) facilities that may cause devastating financial or safety conditions if shut down for more than one week, (5) locations that house irreplaceable items, records, equipment, or research, (6) locations that house a special population that requires particular social services on site not needed by the general public (*e.g.*, prisons, nursing home, and advanced care facilities), or (7) facilities that have a special historic or other character.

#### Critical Fire Weather

A set of weather conditions, usually a combination of wind and low relative humidity, whose effects on fire behavior make fire control difficult and threaten firefighter safety.

#### **Debris**

The scattered contents and structural material of homes, businesses, and other structures broken or destroyed in a hazard event. Debris caused by a wind or water hazard events can cause additional damage to other community assets.

# Depth of Flooding

The difference between the Base Flood Elevation and the Lowest Floor Elevation.

# **Design Wind Speed**

The wind velocity for which structures in a specific **Design Wind Speed Zone** must be constructed to withstand. The American Society of Civil Engineers (ASCE) determines the Design Wind Speeds and Zones.

#### **Design Wind Speed Zone**

A zone throughout which the **Design Wind Speed**, as determined by the ASCE, is consistent. There are four zones in the U.S.: Zone I (winds up to 130 mph); Zone II (winds up to 160 mph); Zone III (winds up to 200 mph); and Zone IV (winds up to 250 mph).

# Digital Flood Insurance Rate Map (DFIRM)

A **Flood Insurance Rate Map** that has been updated and produced in digital format for use in **GIS** and internet applications.

# Digital Orthophoto Quarter Quadrangle (DOQQ)

A computer-generated image of an aerial photograph in which displacements caused by camera orientation and terrain have been removed. These products combine the image characteristics of a photograph with the geometric qualities of a map and can be used in numerous GIS applications either alone or in combination with other digital data.

#### Disaster

A dangerous event that causes significant human and economic loss and demands a crisis response beyond the scope of any single agency or service such as the fire department or police.

# Disaster Mitigation Act of 2000 (DMA 2000)

The DMA2000 (PL 106-390), signed into law October 10, 2000, amends Section 409 of the **Stafford Act**, reinforces the importance of mitigation planning, and emphasizes planning for disasters before they occur. It establishes a pre-disaster mitigation program and provides new requirements for the **Hazard Mitigation Grant Program** (HMGP). A complete copy of this Act is provided in the appendix to this Plan.

# **Displacement Cost**

The overall dollar amount it would cost for the function of a facility, business, or service to be relocated to another structure because of a hazard event.

# Displacement Cost per Day

Part of the Loss Estimation process, this is the average cost per day for a facility to be relocated to a temporary facility as a result of a hazard event. This value can be estimated by dividing the **Displacement Cost** by the **Displacement Time**.

# **Displacement Time**

The average time (in days) that a building's occupants typically must operate from a temporary location while repairs are made to the original building due to damages resulting from a hazard event.

#### Duration

The length of time a hazard event lasts.

#### **Earthflow**

A type of **Landslide** generally characterized as a combination of a **Slump** and a **Mudflow**.

# Earthquake

A sudden motion or trembling that is caused by a release of strain accumulated within or along a fault. See also **Ground Motion**.

#### Earthquake Focus

The true center of an earthquake.

#### **Emergency**

As defined in the Stafford Act, "any occasion or instance for which, the determination of the president, federal assistance is needed to supplement State and local efforts and capabilities to save lives and to protect property and public health and safety, or to lessen or avert the threat of a catastrophe in any part of the United States."

# **Emergency Management**

Organized analysis, planning, decision making, and assignment of available resources to mitigate, prepare for, respond to, and recover from the effects of all hazards.

## **Emergency Response Plan**

Also known as an emergency operations plan, this is a document that contains information on the actions that may be taken by a governmental jurisdiction to protect people and property before, during, and after a disaster.

#### **Epicenter**

The point on the earth's surface directly above the earthquake focus.

# **Erosion**

The wearing away of the land surface by detachment and movement of soil and rock fragments, during a flood or storm or over a period of years, through the action of wind, water, or other geologic processes.

#### **Erosion Hazard Area**

The area anticipated to be lost to shoreline retreat over a given period of time. The projected inland extent of the area is measured by multiplying the average annual long-term recession rate by the number of years required.

# **Exposure**

The number, types, qualities, and monetary values of various types of property or infrastructure and life that may be subject to an undesirable or injurious hazard event.

# Extent

The size of an area affected by a hazard or hazard event.

# **Extratropical Cyclone**

Cyclonic storm events like Nor'easters and severe winter low-pressure systems. Both the West and East coasts can experience these non-tropical storms that produce gale-force winds and precipitation in the form of heavy rain or snow. Typically called Nor'easters on the East Coast because of the direction of the storm winds, these storms can last for several days and be very large – 1,000 mile-wide storms are not uncommon.

#### Fault

A fracture in the continuity of a rock formation caused by a shifting or dislodging of the earth's crust, in which adjacent surfaces are differentially displaced parallel to the plane of fracture.

# Federal Emergency Management Agency (FEMA)

Agency created in 1979 to provide a single point of accountability for all Federal activities related to disaster mitigation and emergency preparedness, response, and recovery. FEMA is part of the Department of Homeland Security.

#### Fire Hazard Severity

The potential for the occurrence of a **Wildfire** due to a combination of slope, fuel availability and type, and prevalence of **Critical Fire Weather** in an area.

# Fire Hazard Severity Table

This table correlates Critical Fire Weather prevalence, slope, and fuel classification of an area to estimate an area's degree of fire hazard.

## Fire Management Assistance

The Fire Management Assistance grant program administers FEMA grants for mobilization, response, equipment, supplies, personnel, and demobilization. It is available to any state or local government for mitigation, management, and control of any major fire burn on public or private forest land or grassland that threatens destruction that would constitute a major disaster. The grant is based on 75%/25% cost sharing basis.

#### Fire Potential Index (FPI)

Developed by the United States Geological Service (USGS) and United States Forest Service (USFS), this index is used to assess and map fire hazard potential over broad areas. Using the geographic information from this index, national policy makers and on-the-ground fire managers have established priorities for prevention activities in defined areas to reduce the risk of managed and wildfire ignition and spread. Prediction of fire hazard shortens the time between fire ignition and initial attack by enabling fire managers to pre-allocate and stage suppression forces to high fire risk areas.

#### Flash Flood

A flood event occurring with little or no warning where water levels rise at an extremely fast rate.

#### Flood

A general and temporary condition of partial or complete inundation of normally dry land areas from: (1) the overflow of inland or tidal waters, (2) the unusual and rapid accumulation or runoff of surface waters from any source, or (3) mudflows or the sudden collapse of shoreline land.

# Flood Depth

The height of the floodwater surface above the ground surface.

#### Flood Elevation

The elevation of the water surface above an established datum (*e.g.*, the National Geodetic Vertical Datum of 1929; the North American Vertical Datum of 1988; or Mean Sea Level).

#### Flood Hazard Area

An area as defined on a **Flood Insurance Rate Map** having the possibility to be inundated by a flood of a given magnitude.

#### Flood Insurance Rate Map (FIRM)

As defined under the NFIP, this is an official map of a community on which the administrator of the Flood Insurance Administration has delineated the **Special Flood Hazard Areas** applicable to that community.

# Flood Insurance Study (FIS)

A study that provides an examination, evaluation, and determination of flood hazards and, if appropriate, corresponding water surface elevations in a community or communities.

#### Flood Mitigation Assistance Program (FMA)

A program created as part of the National Flood Insurance Reform Act of 1994. FMA provides funding to assist communities and states in implementing actions that reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other NFIP insurable structures, with a focus on repetitive loss properties. The FMA program is comprised of yearly funds used in the acquisition, relocation, and demolition of repetitive loss properties throughout the State. Based on 75%/25%cost sharing, the property loss must be flood-related. All projects must be submitted through the local government to the SHMO and recommended by the SHMT before they can be forwarded to FEMA for consideration. Grants are based on an annual allocation from FEMA.

# Flood Zone

A geographical area shown on a FIRM that reflects the severity or type of flooding in the area. Flood zones may be classified as A, A1-30, AE, AO, AH, A99, AR, V, V1-30, VE, B, C, D, or X. The characteristics of these zones are described on the FIRM.

# Floodplain (or flood-prone area)

As defined under the NFIP, any land area susceptible to being inundated by water from any source.

# Floodplain Management

As defined under the NFIP, the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works, and floodplain management regulations.

# Floodproofing

Actions that prevent or minimize future flood damage. Making the areas below the anticipated flood level watertight (dry flood proofing) or intentionally allowing floodwater to enter the interior to equalize flood pressures (wet flood proofing) are examples of flood proofing.

#### **Floodway**

See Regulatory Floodway.

# Frequency

The measure of how often on average a hazard event of a particular magnitude is expected to occur within a particular time frame. Statistically, a hazard with a 100-year recurrence interval is expected to occur once every 100 years on average, and would have a 1 percent chance – its **Probability** – of happening in any given year (e.q., a 1% flood).

#### Fuel

Combustible plant material, both living and dead, that is capable of burning in a wildland situation. Also, any other flammable material in the built environment that feeds a wildfire.

#### Fujita Scale of Tornado Intensity

This scale rates tornadoes with numeric values from F0 to F5 based on tornado wind speed and damage sustained. An F0 indicates wind speeds less than 72 miles per hour and minimal damage such as broken tree limbs or signs, while an F5 indicates wind speeds in excess of 260 miles per hour and severe damage sustained.

#### **Function Loss**

Part of the Loss Estimation process, this value represents the functional dollar value loss of a structure/facility as a result of damage from the hazard event. This value (for each affected structure) is equal to the **Average Daily Operating Budget** of the structure multiplied by the **Functional Downtime** plus the **Displacement Cost per Day** multiplied by the **Displacement Time**.

# **Function Value**

An estimate during an asset inventory that represents the value of a building's use or function that would be lost if it were damaged or closed.

# **Functional Downtime**

The average time (in days) during which a function (business or service) is unable to provide its services due to a hazard event.

#### Geographic Area Impacted

See Extent.

# Geographic Information System (GIS)

A computer software application that relates physical features on the earth to a database of attributes (descriptions, characteristics) about those physical features to be used for mapping and analysis.

#### Goals

General guidelines that express desired results. They are usually broad policy-type statements, long-term in nature and represent global visions.

#### **Ground Failure**

Permanent deformation of the soil, including faulting, consolidation, liquefaction, or landslides. Ground failure can cause extensive damage to buildings and lifelines, and development in areas prone to ground failure should be avoided.

### **Ground Motion**

Movement of the ground resulting from earthquake-generated waves in the earth. Ground motion normally includes horizontal and vertical components, although the horizontal movement is more severe and causes the greatest damage. Building codes normally address horizontal motion, as vertical motion usually does not exceed gravity design.

#### Hazard

Generally, any source of potential danger or adverse condition that has the potential to cause fatalities, injuries, property damage, infrastructure damage, and agricultural loss, damage to the environment, interruption of business, or other types of harm or loss. Hazards may be divided into two broad categories, depending on the source of the event - **Natural Hazards** and **Manmade Hazards**.

#### **Hazard Event**

A specific occurrence of a particular type of hazard.

#### **Hazard Identification**

See Hazard Profile.

#### **Hazard Mitigation**

Measures undertaken to reduce the effects of hazards on a place and its population. Hazards addressed in this Plan include a range of naturally occurring events, such as floods, high winds and ice storms, and manmade hazards resulting from accidents.

# **Hazard Mitigation Plan**

The result of a process States undertake to identify risks they face from natural and manmade hazards; and the best ways to reduce or eliminate the potential for loss of life, property damage, and disruption of economic activities. Hazard mitigation actions that can be identified through this type of planning process include a wide range of activities and projects, from educating home owners about how to strengthen their homes to resist damage from hurricane force winds, to the construction of large scale public works projects like a levee that limits the extent of flooding.

#### **Hazard Mitigation Program**

The coordinated effort by a state or community to implement actions from the Plan. It also includes an important function of state governments - administering hazard mitigation grant funding to state and local agencies. A fundamental part of the Program, therefore, is the *Administrative Guidelines and Procedures* used to solicit, award and monitor compliance with Federal and state grants.

# Hazard Mitigation Grant Program (HMGP)

A grant program authorized under Section 404 of the **Stafford Act**, 42 USC 5170c and implemented at 44 CFR Part 206, Subpart N, that authorizes funding for certain mitigation measures identified through the evaluation of natural hazards conducted under Section 322 of the Stafford Act 42 USC 5165. HMGP is administered by implementing hazard mitigation actions after a major disaster declaration. The purpose of the program is to reduce the loss of life and property due to disasters and to enable mitigation activities to be implemented as a community recovers from a disaster. HMGP provides 75% of the eligible project costs and requires 25% non-Federal funds.

#### **Hazard Profile**

The process by which the hazards that affect a particular locality or region are identified, described, and defined, including the physical characteristics, magnitude and severity, probability and frequency, causative factors, and extent.

#### **HAZUS**

"Hazards U.S." This is a standardized, nationally applicable hazard loss estimation methodology that uses PC-based GIS software. Although originally designed for use in estimating earthquake losses, recent updates to the software now include both flood and wind event modules (known as HAZUS-MH or HAZUS-Multi-hazard). See the FEMA website at <a href="http://www.fema.gov/hazus/">http://www.fema.gov/hazus/</a> for more information and a free download.

#### Hurricane

An intense tropical cyclone, formed in the atmosphere over warm ocean areas, in which wind speeds reach 74 miles per hour or more and blow in a large spiral around a relatively calm center or "eye." Hurricanes develop over the North Atlantic Ocean, northeast Pacific Ocean, or the South Pacific Ocean east of 160° East longitude. Hurricane circulation is counter-clockwise in the Northern Hemisphere and clockwise in the Southern Hemisphere.

### Hydrology

The study of water and its properties. A flood discharge model is developed by a hydrologic study.

#### Individual Assistance

The Individual Assistance program provides Individual and Family Grants up to \$15,000 per family. Temporary housing, food, relocation assistance, legal and tax assistance, and a Cora Brown Fund of \$2,000 are also included in this category.

#### Infrastructure

Refers to the public services of a community that have a direct impact on the quality of life in that community. These services include communication technology such as phone lines or internet access, vital services such as public water supplies and sewer treatment facilities, and transportation systems such as airports, highways, bridges, tunnels, roadbeds, overpasses, railways, bridges, rail yards, depots, waterways, and canals. See also **Lifeline Systems**.

## Inland Flooding

Flooding that occurs landward of a shoreline as a result of a coastal storm moving across the land bringing torrential rains and backwater flooding from the ocean. These in turn cause rivers and streams in these inland areas to overflow. Severe coastal storms have been known to cause floods in inland areas whose **flood depths** may exceed that expected from a **0.2% flood**.

# **Integrated Emergency Management System (IEMS)**

The application of the **Comprehensive Emergency Management** concept. This program integrates or incorporates all available resources for the full range of hazards and the full range of functions related to the four phases of emergency management (mitigation, preparedness, response, and recovery).

## Interim Emergency Board (IEB)

State-awarded emergency funds are available through the Interim Emergency Board and are used whenever an event does not meet the criteria of a Federal disaster declaration. Based upon a 75%/25% cost share, applicants must be in a declared area and make s submission to the State disaster package requesting funding under the IEB program.

#### Intensity

A measure of the strength of a hazard event at a particular place.

#### Inundate / Inundation

To cover or be covered by water, especially from a flood, as a result of a severe rainstorm, hurricane, or tsunami.

#### Landslide

Downward movement of a slope and materials under the force of gravity. There are at least four types of landslides, depending on the content and flow characteristics: **Mudslides**; **Rock Slides**; **Slumps**; and **Earthflows**.

#### Landslide Hazard Map

These maps show the extent of a landslide threat, combining data about locations where landslides have occurred in the past, where they are likely to occur now, and where they could occur in the future. When compiled accurately, these maps may be used to predict the relative degree of landslide hazard in a landslide area.

# **Landslide Inventory**

The process by which areas that appear to have failed due to landslides, including debris flows and cut-and-fill failures, are identified.

## Landslide Susceptibility Map

These maps show areas that have the potential for landslides by correlating some of the principal factors that contribute to landslides (*i.e.*, steep slopes, geologic units that lose strength when saturated, poorly drained rock or soil, slope angle, and soil drainage characteristics) with the past distribution of landslides in those areas.

# **Lateral Spread**

A type of **Liquefaction**, this develops on gentle slopes and entails the sidelong (downhill) movement of large masses of soil as the underlying layer liquefies.

#### Level of Acceptable Risk

The amount or degree of potential exposure to loss or injury from a hazard event that a jurisdiction has agreed to comply with when planning the future development of that jurisdiction.

#### Lifeline Systems

Public works and utilities(such as electrical power, gas and liquid fuels), telecommunications, transportation, and water and sewer systems.

# Liquefaction

The temporary loss of shear strength in a water-saturated, cohesion-less soil deposit, or temporary transformation of unconsolidated materials into a fluid mass. Liquefaction causes two types of ground failure: Lateral Spread and Loss of Bearing Strength.

#### **Local Government**

As defined by the **Disaster Mitigation Act of 2000**, this is any county, municipality, city, town, township, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; any Indian tribe or authorized tribal organization, or Alaska Native village or organization; and any rural community, unincorporated town or village, or other public entity.

# Locality

See Local Government.

#### Loss of Bearing Strength

A type of **Liquefaction**, this results when the soil supporting a structure liquefies, potentially causing the structure to tip and topple.

#### **Lowest Floor Elevation**

Under the NFIP, this is the elevation of the lowest floor of the lowest enclosed area of a structure (including a basement). This information is available from an elevation certificate (if the building was constructed after a floodplain management ordinance was in force) or from a recorded subdivision plat, site survey, or building permit.

#### Magnitude

A measure of the strength of a hazard event. The magnitude (also referred to as "severity") of a given hazard event is usually determined using technical measures specific to the hazard.

# Major Disaster

As defined by the Stafford Act, "any natural catastrophe..., or, regardless of cause, any fire, flood, or explosion in any part of the United States, which in the determination of the president causes damage of sufficient severity and magnitude to warrant major disaster assistance under this act to supplement the efforts and available resources of states, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby."

#### Managing State

A State to which FEMA has delegated the authority to administer and manage the HMGP under the criteria established by FEMA pursuant to 42 USC 5170c(c). FEMA also may delegate authority to tribal governments to administer and manage the HMGP as a Managing State.

#### Manmade Hazards

Hazard events that originate from human activity. These types of events may be further defined as either technological hazards or terrorism.

#### Mitigate

To cause something to become less harsh, hostile, or destructive; to make less severe or painful.

# Mitigation

See Hazard Mitigation.

# Mitigation (404)

Mitigation (404) makes funds available following a **Presidential Disaster Declaration** and can be used on any preventive measure, but the applicant must be located in a declared parish. It is based on a 75%/25% cost sharing basis, requires the submission of Form 424 2016, and a FEMA Project Summary in order to apply.

#### Mitigation (406)

Mitigation (406) supplements the **Public Assistance** Program Project Worksheet through proposed mitigation measures. These grants are also based on a 75%/25% cost sharing basis and all work must be in a declared parish and the damages must have happened during the declared event.

# Mitigation Measures / Mitigation Strategies

Those actions proposed and/or undertaken by a jurisdiction to minimize future vulnerability to one or more hazards.

## Mitigation Planning

A systematic evaluation of the nature and extent of vulnerability to the effects of hazards typically present in a jurisdiction. This process also includes a description of **Mitigation Measures**.

# Mitigation Plan

The document that articulates results from the systematic process of identifying hazards and evaluating vulnerability, identifying goals, objectives, and actions to reduce or eliminate the effects of identified hazards, and an implementation plan for carrying out the actions.

#### Modified Mercalli Scale

A subjective measure of the strength (Intensity) of the shaking experienced in a seismic event. This scale represents the local effect or damage caused by an earthquake. Also known as Modified Mercalli Intensity. See also Peak Ground Acceleration and Richter Magnitude Scale.

## Mudslide / Mudflow

This type of **Landslide** is characterized by flows of a well-mixed mass of <u>rock</u>, earth, and water that behaves like a <u>fluid</u> and moves down slopes with a consistency similar to that of newly mixed concrete. Also known as debris flows.

#### Municipality

As defined in Title 15.2 Section 102 of the COV this term shall be construed to relate only to Cities and Towns.

#### National Flood Insurance Program (NFIP)

A Federal program created by Congress in 1968 that makes flood insurance available in communities that enact the minimum floodplain management regulations defined in 44 CFR §60.3.

#### National Weather Service (NWS)

A division of the National Oceanographic and Atmospheric Administration (NOAA), the NWS prepares and issues flood, severe weather, and coastal storm warnings and can provide technical assistance to Federal and State entities in preparing weather and flood warning plans.

#### **Natural Hazards**

Those events caused by one or more natural occurrences, including hurricanes, tornadoes, storms, floods, tidal waves, tsunamis, high or wind-driven waters, volcanic eruptions, earthquakes, snowstorms, wildfires, droughts, landslides, and mudslides. While the risks presented by natural hazards may be increased or decreased as a result of human activity, they are not inherently human-induced.

#### Nor'easter

An Extratropical Cyclone producing gale-force winds and precipitation in the form of heavy snow or rain.

# **Objectives**

Objectives define strategies or implementation steps to attain identified goals. Unlike goals, objectives are specific and measurable.

#### Obstruction

In a **Floodplain**, obstructions are bridges, culverts, and other obstacles that can block flood flow and trap debris, causing increased flooding upstream and increased flood velocity downstream.

# **Occupancy Class**

As part of an asset inventory, this is a description of a facility's general use or function. Based on a facility's Occupancy Class, one also may estimate the **Content Value** and **Replacement Value** using tables developed from regional and national averages.

#### **Open Space Preservation**

Preserving undeveloped areas from development through any number of methods, including low-density zoning, open space zoning, easements, or public or private acquisition. Open space preservation is a technique that can be used to prevent flood damage in flood-prone soils, and can enhance the natural and beneficial functions of floodplains.

#### Outflow

In a coastal storm event, this is the flow of floodwaters from inundated areas back to the ocean or bay. Outflow can create strong currents, ripping at structures, pounding them with debris, and eroding beaches and coastal structures.

# Peak Ground Acceleration (PGA)

A measure of the strength of ground movements in a seismic event. This measures the rate in change of motion relative to the established rate of acceleration due to gravity (g = 9.8 meters/second/second).

#### **Planimetric**

Describes a map in which the information on the map is in true geographic relationship (*i.e.*, it is "to scale") with measurable horizontal distances.

# **Planning**

The act or process of making or carrying out plans; specifically, the establishment of goals, policies, and procedures for a social or economic unit.

# **Planning Committee**

The core group of **Stakeholders** who will see the hazard mitigation planning process through by setting the plan schedule, organizing the work teams, monitoring progress, and coordinating the review and adoption of the various sections of the plan. This committee should include representatives from the following groups: neighborhood groups and other non-profit organizations; State, regional, and local government representatives; businesses and development organizations; elected officials; Federal agency representatives; and academic institutions. See also **Stakeholder**. (Please refer to the FEMA How-to Guide, "Getting Started," Chapter 2 for more information on this topic.)

# Post-Disaster Recovery Planning

The process of planning those steps the jurisdiction will take to implement long-term reconstruction with a primary goal of mitigating its exposure to future hazards. The post-disaster recovery planning process can also involve coordination with other types of plans and agencies, but it is distinct from planning for emergency operations.

# Preparedness

A condition in which a **Community** is making or has made plans and preparations to strengthen the capability of that community to reduce the impact of, respond to, and recover from a disaster.

#### Probability

A statistical measure of the likelihood that a hazard event will occur in a given time period.

#### **Public Assistance**

The Public Assistance (PA) grant program provides reimbursement of overtime, materials, rented equipment, and contracts used for emergency and permanent work to eligible state and local government applicants in accordance with 44 CFR, Part 206.222. The applicant must be in the declared area and agree to a 75%/25% cost share. The Large Project amount for 2002-03 was \$53,000.

#### Q3 Flood Data

Also known as "Digital Quality Level 3" flood data, these data are a digital representation of certain features on the paper **Flood Insurance Rate Maps (FIRM)**. At present, this data is available on CD-ROM from FEMA for 1,200 counties nationwide. This data is similar to the FIRM data, but does not include: hydrographic features (streams, rivers, lakes, and shorelines); base flood elevations; cross-section lines; roads, road names, or address ranges; and locations, elevations, and descriptions of benchmarks and elevation reference marks.

#### Reconstruction

The long-term process following a disaster of rebuilding a community's destroyed housing stock, commercial and industrial buildings, public facilities, and other structures.

#### Recovery

The actions taken by an individual or community after a catastrophic event to restore order and lifelines in a community. These may be started during but extend beyond the emergency period to that point when the vast majority of such services, including electricity, water, communications, and public transportation have resumed normal operations. Short-term recovery does not include the reconstruction of the built environment (although reconstruction may commence during this period) but primarily focuses on restoring public and utility services. Long-term recovery (see Reconstruction) is the process of returning the community, to the extent possible, to the conditions that existed prior to the event, preferably while taking advantage of opportunities to mitigate against future disasters.

#### Recurrence Interval

The time between hazard events of a similar size in a given location. This interval is based on the probability that the given event will be equaled or exceeded in any given year. See also 1% Flood and 0.2% Flood.

#### Regulatory Floodway

As defined under the NFIP, this is the stream channel and that portion of the adjacent floodplain that must remain open to permit passage of the base flood without raising the water surface elevation by more than one foot.

# Repetitive Flood Loss (property)

Any property that is currently insured that has had two or more claims greater than \$1,000 paid by the NFIP within any 10-year period since 1978.

# Replacement Value

As assessed during an asset inventory, this is the current cost of returning a physical asset to its pre-damaged condition. This usually is expressed in terms of cost per square foot and reflects the present-day cost of labor and materials to construct a building of a particular size, type, and quality. See also **Content Value**.

#### Resource Inventory

An analysis of the resources a community can call upon in the event of an emergency.

# Response

Those actions taken during a hazard event to provide emergency assistance by addressing immediate life and safety needs, minimize further damage to properties, and speed **Recovery** immediately following a disaster.

#### Revetments

Rock or other hardened materials (*e.g.*, concrete blocks) placed atop riverbanks, along shorelines, and on slopes to reduce erosion, temper wave action, and improve stream flow.

#### Richter Magnitude Scale

A numerical scale of earthquake magnitude devised by seismologist C.F. Richter in 1935. This is the common scale with which most of the public is familiar. See also **Modified Mercalli Scale** and **Peak Ground Acceleration**.

#### Riprap

See Revetments.

#### Risk

The estimated probability that damage will occur to life, property, or the environment if a hazard event occurs. Risk often is expressed in relative terms such as a high, moderate, or low likelihood of sustaining damage as the result of a hazard event. It also can be expressed in terms of potential monetary losses associated with the intensity of a hazard event.

#### Risk Assessment

A process or method for evaluating risk associated with a specific hazard and defined in terms of hazard probability and frequency of occurrence, magnitude and severity (Intensity), exposure, and consequences. See also Risk, Vulnerability, Exposure, and Probability.

#### Riverine

Of or produced by a river.

#### **Rock Slide**

A type of **Landslide** characterized by the sudden and rapid slide of bedrock along planes of weakness.

# Saffir/Simpson Scale

A system for evaluating the intensity and magnitude of hurricanes, based on wind speed, storm surge, and central pressure. This scale ranges from the weakest (Category 1) to the most powerful (Category 5).

#### Scale

On a map, this is the proportion used in determining a dimensional relationship. It is the ratio of the distance between two points on a map and the actual distance between those two points on the earth's surface. For example, a scale of 1:24,000 means that every one inch on the map is equal to 24,000 inches on the earth's surface.

# Scarp

A steep slope.

#### Scour

The removal of soil or fill material by the flow of floodwaters. The term frequently is used to describe storm-induced, localized conical erosion around pilings and other foundation supports where the **Obstruction** of flow increases turbulence.

#### Seismicity

Describes the likelihood of an area being subject to earthquakes.

#### Slump

A type of **Landslide** characterized by the downward and outward movement of rock or unconsolidated material as a unit or as a series of units. Also called slope failure.

#### Special Flood Hazard Area (SFHA)

As defined under the NFIP, this is land in the floodplain within a community having 1% or greater chance of flood occurrence in any given year (100-year floodplain); represented on FIRMs by darkly shaded areas with zone designations that include the letter A or V.

#### Stafford Act

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (P.L. 100-707), signed into law November 23, 1988, amending the Disaster Relief Act of 1974 (P.L. 93-288). The Stafford Act is the statutory authority for most Federal disaster response activities, especially as they pertain to FEMA and its programs.

#### Stakeholder

Individuals or groups that will be affected in any way by an action or policy. They include businesses, private or non-profit organizations, and citizens.

### State Hazard Mitigation Officer (SHMO)

The representative of State government who is the primary point of contact with FEMA, other State and Federal agencies, and local units of government in the planning and implementation of pre- and post-disaster mitigation programs and activities required under the **Stafford Act**.

# Storm Surge

The rise in the water surface above normal water level on the open coast due to the action of wind stress and atmospheric pressure on the water surface. It is usually manifested as water that is pushed toward the shore by the force of the winds swirling around a storm. These large waves of water sweep across the shorelines where a storm makes landfall. The height of the storm surge will be greater the more intense a storm is. Storm surge areas can be mapped by the probability of storm surge occurrence using Sea, Lake, and Overland Surges from Hurricanes (SLOSH) modeling.

#### Storm Tide

A combination of a storm surge and the normal tide. For example, a 15-foot storm surge along with the normal 2-foot tide creates a storm tide of 17 feet.

#### Structure

See Building.

#### Structure Loss

Part of the Loss Estimation process, this value represents the structural dollar value loss as a result of damage from the hazard event. This value (for each affected structure) is equal to the **Replacement Value** of the structure multiplied by the percent damage experienced by the structure.

#### **Substantial Damage**

Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage.

# **Sub-tropical Depression**

A weather system that has some characteristics of a tropical cyclone and some characteristics of an extra tropical cyclone.

# **Subdivisions and Development Regulations**

Regulations and stands governing the division of land for development for sale. Subdivision regulations can control the configuration of parcels, set standards for developer-built infrastructure, and set standards for minimizing runoff, impervious surfaces, and sedimentation during development. They can be used to minimize exposure of buildings and infrastructure to hazards.

# Surface Faulting

The differential movement of two sides of a fracture- the location where the ground breaks apart. This is characterized by the length, width, and displacement along the fault zone.

# Sustainability

The concept and practice in which decisions and actions made by the present generation do not reduce the options of future generations. These decisions and actions allow the present generation to pass on to the following generations a natural, economic, and social environment that will provide a continuing high quality of life.

#### Sustainable

Able to be continued or maintained at a particular level or intensity without depleting the supporting resource.

# Sustainable Community

In addition to embracing the ideals of sustainability, a sustainable community also considers the following issues when planning for and with its citizens: environmental quality and quality of life; disaster resistance; economic vitality and a fair legacy for future generations; an understanding of and accounting for the impact of its actions and policies on adjacent jurisdictions as well as the greater surrounding region and beyond; and an emphasis on combining policies, programs, and design solutions that bring about multiple objectives and seek to address and integrate social and environmental concerns.

# **Technological Hazard**

Technological hazards refer to incidents that may arise from human activities such as the manufacture, transportation, storage, and use of hazardous materials. For the purposes of this sub-definition, it is assumed that technological emergencies are accidental and that their consequences are unintended. See also: Manmade Hazards.

#### **Tectonic Plate**

Torsionally rigid, thin segments of the earth's lithosphere that may be assumed to move horizontally and adjoin other plates. It is the friction between plate boundaries that cause seismic activity. See also **Earthquake**.

#### Terrorism

Terrorism refers to intentional, criminal, malicious acts, specifically those related to: the use of weapons of mass destruction (WMD) (including biological, chemical, nuclear, and radiological weapons); arson, incendiary, explosive, and armed attacks; industrial sabotage and intentional hazardous materials releases; and "cyberterrorism". See also: Manmade Hazards.

# **Topographic**

Describes a map that shows natural features and indicates the physical shape of the land using contour lines. These maps also may include manmade features.

#### Tornado

A violently rotating column of air extending from a thunderstorm to the ground.

#### Town

As defined by Title 15.2 Section 102 of the COV this is any existing town or an incorporated community within one or more counties that became a town before noon, July 1, 1971, as provided by law or that has within defined boundaries a population of 1,000 or more and that has become a town as provided by law.

### **Tropical Cyclone**

A generic term for a cyclonic, low-pressure system over tropical or sub-tropical waters.

#### **Tropical Depression**

A tropical cyclone with maximum sustained winds of less than 39 mph.

#### **Tropical Storm**

A tropical cyclone with maximum sustained winds greater than 39 miles per hour and less than 74 miles per hour.

# Tsunami

A great sea wave produced by submarine earth movement or volcanic eruption.

# **Unmet Needs program**

Congress may specifically authorize Unmet Needs funding for a major disaster-related event wherein additional funds may be provided to projects not normally funded. Such funding requires a letter of "intent to apply" once Congress has provided authorization and is only available in conjunction with specific authorization by the President.

#### **Urban Growth Boundary (UGB)**

A politically defined boundary that defines the limits of an urban growth area in an attempt to concentrate growth within a designated area, typically an area where urbanization already is prevalent.

#### **Urban Service Boundary (USB)**

A politically defined boundary beyond which public utilities will not be extended. This boundary is determined and enacted by a locality in an attempt to temper and manage urban growth in sensitive and vulnerable areas by limiting the extension of city utilities into undeveloped areas.

#### **Urban Wildfire**

A fire moving from a wildland environment, consuming vegetation as fuel, to an urban environment where the fuel consists primarily of buildings and other structures.

#### **Urban/Wildland Interface**

A developed area occupying the boundary between an urban or settled area and a wildland characterized by vegetation that can serve as fuel for a forest fire.

#### Velocity

The speed of a moving object, usually measured in miles per hour, kilometers per hour, feet per second, or meters per second.

#### **Vulnerability**

The level or degree of exposure of human life and property to damage from natural or manmade hazards.

#### **Vulnerability Assessment**

The analysis and determination of the overall vulnerability of the population and property in a specified area to possible injury and damage that may result from a hazard event of a given intensity. This assessment analyzes the impact of hazard events on both the existing and future population and built environment.

# **Vulnerable Populations**

Any segment of the population that is more vulnerable to the effects of hazards because of things such as lack of mobility, sensitivity to environmental factors, or physical abilities. These populations can include, but are not limited to, senior citizens and school children.

### Wave Height

The height of a wave above the mean water surface level of a lake or ocean.

#### Wave Runup

The distance or height up to which a wave extends on a steep shoreline, as measured relative to a reference level such as the normal height of the sea.

# Wildfire

An uncontrolled fire spreading through vegetative fuels, exposing and possibly consuming structures.

# Wildland Fire

A **Wildfire** in an area in which development is essentially nonexistent, except for roads, power lines, railroads, and other similar features.

# **Zoning Ordinances**

Designation of allowable land use and intensities for local jurisdiction. Zoning ordinances consist of two components: a zoning text and a zoning map.

